



Extent freshwater limestone bank at Iván-halála Valley, Gerecse Mts., Northern Hungary: a key to understand the uplift history of the region

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DC geoelectrical measurements (VES and multielectrode sounding) have been carried out in the western Gerecse Mountains (northern Hungary), east of the village of Dunaszentmiklós, in between the Tekeres stream and the Nagy-Somló Hill, in order to understand the geological structure and partially the geological evolution of the Mesozoic rocks dominated region.

Evaluating the measurements a well defined, high resistivity, 5-20 m thick layer in shallow depth was outlined on the hilltops of two sides of the valley. In one side, this bank is found at a point with elevated position, while on the other side, the 5-10 m thick bank covers an extent, 250 meters wide area, with a dip of cca. 5-6 degrees WNW, covering the slope itself. This layer corresponds to a Pleistocene freshwater limestone formation that was not known until now on the research area.

The presence and the spatial extension of the limestone body is a key for understanding the (neo)tectonic evolution of the study area. Freshwater limestones mark paleo-surfaces that can be originally horizontal and tilt later because of regional structural or local slope movements – and the paleosurface itself could be originally tilt, too. However, it is an interesting puzzle tile to understand of the uplift history of the western Gerecse mountains and this part of the Transdanubian Range.

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